



A.D. 1859, 28th APRIL. N° 1073.

S P E C I F I C A T I O N

OF

WILLIAM ALONZO TOMPSON.

APPARATUS FOR APPLYING LIQUIDS TO
THE THROAT AND AIR PASSAGES.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.

1859.



A.D. 1859, 28th APRIL. N° 1073.

**Apparatus for Applying Liquids to the Throat and
Air Passages.**

LETTERS PATENT to William Alonzo Tompson, of 18, Cecil Street, Strand, in the County of Middlesex, and Weston Green, Thames Ditton, in the County of Surrey, Surgeon and Apothecary, for the Invention of
“**IMPROVEMENTS IN APPARATUS FOR APPLYING LIQUIDS TO THE THROAT AND AIR PASSAGES FOR MEDICAL PURPOSES.**”

Sealed the 28th June 1859, and dated the 28th April 1859.

PROVISIONAL SPECIFICATION left by the said William Alonzo Tompson at the Office of the Commissioners of Patents, with his Petition, on the 28th April 1859.

I, WILLIAM ALONZO TOMPSON, of 18, Cecil Street, Strand, in the County of
5 Middlesex, and Weston Green, Thames Ditton, in the County of Surrey, Surgeon and Apothecary, do hereby declare the nature of the Invention for
“**IMPROVEMENTS IN APPARATUS FOR APPLYING LIQUIDS TO THE THROAT AND AIR PASSAGES FOR MEDICAL PURPOSES,**” to be as follows:—

This Invention has for its object improvements in apparatus for applying
10 liquids to the throat and air passages for medical purposes. With this object I employ a flexible or other gas holder or vessel containing air under pressure ; and I connect this gas holder or vessel with a pipe, by means of which a jet of air can be directed on to the interior of the throat of the patient. Before the air passes to the throat I cause it to become saturated with a mist of the
15 liquid (usually a solution of nitrate of silver) which I desire to apply. This

Tompson's Improved Apparatus for Applying Liquids to the Throat, &c.

is effected by causing the air from the gasometer to pass into a small egg-shaped vessel of glass containing a few drams of the solution; the air is caused to enter near the upper part of the vessel on one side and to issue from the top of the vessel to the escape tube or jet by which it is applied. The vessel which holds the solution, also contains a piece of glass rod having a number 5 of capillary passages formed from end to end of it, and one end of this rod rests in the liquid, while the other rises above it. The air in entering impinges on the surface of the liquid and forces it through the passages in the rod; it is thus brought within the range of the current of air, and is carried by it through the escape tube or jet; at the end of this tube there is a covering of very 10 fine gauze of silver wire, through which the solution can escape to the throat only in an extremely divided state. The connection between this tube and the solution vessel is formed by a vulcanized india-rubber tube.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said William Alonzo Tompson in the Great Seal Patent Office 15 on the 28th October 1859.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM ALONZO TOMPSON, of 18, Cecil Street, Strand, in the County of Middlesex, and Weston Green, Thames Ditton, in the County of Surrey, Surgeon and Apothecary, send greeting. 20

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-eighth day of April, in the year of our Lord One thousand eight hundred and fifty-nine, in the twenty-second year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said William Alonzo Tompson, Her special licence that I, the said William 25 Alonzo Tompson, my executors, administrators, and assigns, or such others as I, the said William Alonzo Tompson, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom 30 of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for “**IMPROVEMENTS IN APPARATUS FOR APPLYING LIQUIDS TO THE THROAT AND AIR PASSAGES FOR MEDICAL PURPOSES**,” upon the condition (amongst others) that I, the said William Alonzo Tompson, my executors or administra- 35 tors, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of

Tompson's Improved Apparatus for Applying Liquids to the Throat, &c.

the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

5 **NOW KNOW YE**, that I, the said William Alonzo Tompson, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:—

This Invention has for its object improvements in apparatus for applying
10 liquids to the throat and air passages for medical purposes. With this object I employ a flexible or other gas holder or vessel containing air under pressure; and I connect this gas holder or vessel with a pipe by means of which a jet of air can be directed on to the interior of the throat of the patient. Before the air passes to the throat I cause it to become saturated with a mist of the
15 liquid (usually a solution of nitrate of silver) which I desire to apply. This is effected by causing the air from the gasometer to pass into a small egg-shaped vessel of glass containing a few drams of the solution; the air is caused to enter near the upper part of the vessel on one side and to issue from the top of the vessel to the escape tube or jet by which it is applied. The vessel which holds
20 the solution also contains a piece of glass rod, having a number of capillary passages formed from end to end of it, and one end of this rod rests in the liquid while the other rises above it. The air in entering impinges or presses on the surface of the liquid, and forces it through the passages in the rod; it is thus brought within the range of the current of air, and is carried by it
25 through the escape tube or jet; at the end of this tube there is a covering of very fine gauze of silver wire, through which the solution can escape to the throat only in an extremely divided state. The connection between this tube and the solution vessel is formed by a vulcanized india-rubber tube.

Having thus stated the nature of my said Invention, I will proceed more
30 fully to describe the manner of performing the same.

DESCRIPTION OF THE DRAWING,

which represents partly in section an apparatus arranged suitably for carrying out my Invention. *a* is a flexible pipe leading to a gas holder, bellows, or other vessel, by pressure on which air may be caused to flow from
35 the gas holder or vessel to the apparatus. The flexible pipe *a*, which is, by preference, of vulcanized india-rubber, is connected to the branch *b* of the glass vessel *c*, in which is contained the liquid which it is desired should be applied to the interior surfaces of the throat; *d* is a glass rod through which

Tompson's Improved Apparatus for Applying Liquids to the Throat, &c.

there are several fine tubular passages ; this rod is kept upright in the vessel *c* by means of metal springs *e*, or in any convenient manner ; or the liquid may be divided into numerous small streams by other forms of apparatus, and materials other than glass may be used for such purpose. At the upper part of the neck of the egg-shaped vessel *c* a cover *f* is fixed which may be conveniently done by a short piece of vulcanized india-rubber tube *g*, as shewn in the Drawing. Through the cover *f* a short tube *h* is screwed, so that its end may come more or less near to the upper end of the rod *d* ; and *i* is a screw cap which screws on the cover *f* to make it air-tight and retain the tube *h* in a fixed position ; *j* is a tube, the outer end of which is introduced into the fauces or throat. Near the outer end of the tube *j* is applied a disc or partition of very fine wire gauze ; the other end of the tube *j* is attached to the tube *h* by a short flexible tube of vulcanized india-rubber. By this apparatus the liquid in the vessel *c* will be pressed on by the air passing into the vessel through the pipe *a* ; and such liquid will be forced through the fine tubular passages in the rod *d*, and the liquid together with air will be caused to pass through the tube *j*, and be projected against the inner surfaces of the throat, the liquid being carried by numerous small streams of air. The pressure of the air acting to propel the fluid through the passages in the rod *d* will be regulated by the end of the tube *h* being brought nearer to or further from the end of the rod *d*.

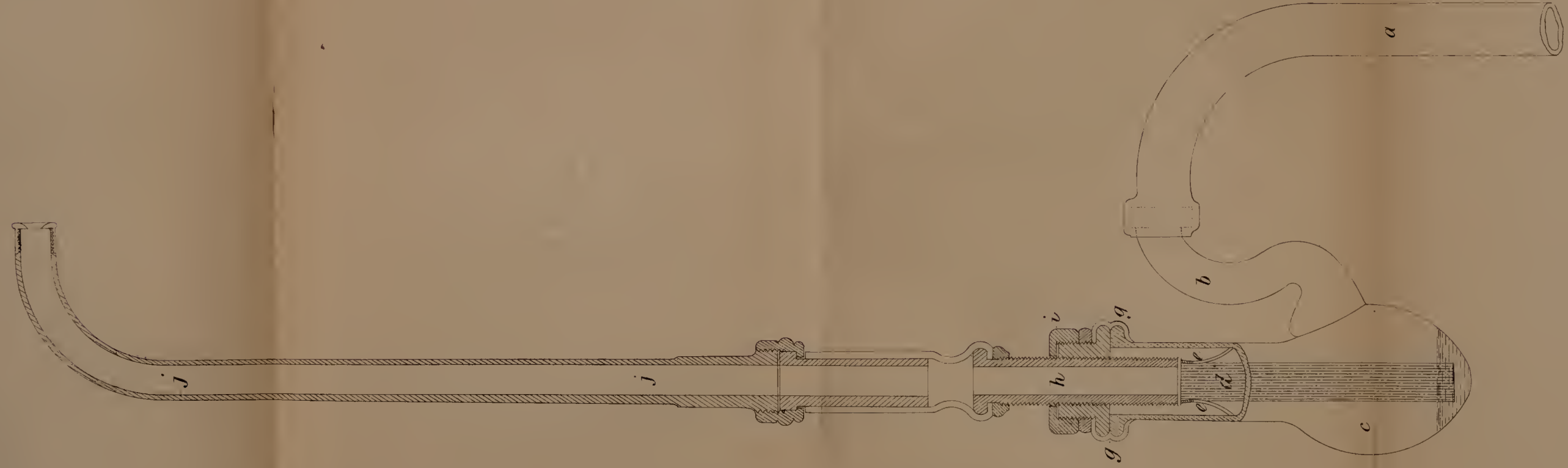
In witness whereof, I, the said William Alonzo Tompson, have hereunto set my hand and seal, this Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and fifty-nine.

W. A. TOMPSON. (L.S.) 25

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1859.

53



The filed drawing is colored.

Drawn on Stone by Malby & Sons.

